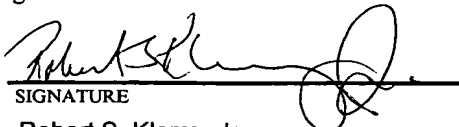


DT17 Rec'd PCT/PTO 28 SEP 2004

FORM PTO-1390 (REV. 1-98)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY'S DOCKET NUMBER 1396 US/PCT	
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371				U.S. APPLICATION NO. (If known, see 37 CFR 1.5) <div style="font-size: 1.5em; font-weight: bold; text-align: center;">10/509501</div>	
INTERNATIONAL APPLICATION NO. PCT/BE03/00056		INTERNATIONAL FILING DATE 28 MARCH 2003		PRIORITY DATE CLAIMED 28 MARCH 2002	
TITLE OF INVENTION <div style="text-align: center;">Thermal Shock Resistant Casting Element and Manufacturing Process Thereof</div>					
APPLICANT(S) FOR DO/EO/US <div style="text-align: center;">HANSE et al.</div>					
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:					
<ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371. 3. <input type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1). 4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date. 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau). b. <input checked="" type="checkbox"/> has been transmitted by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2)). 7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau). b. <input checked="" type="checkbox"/> have been transmitted by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)). 9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). 10. <input checked="" type="checkbox"/> A translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). 					
Items 11. to 16. below concern document(s) or information included:					
<ol style="list-style-type: none"> 11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. <input checked="" type="checkbox"/> A FIRST preliminary amendment. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment. 14. <input type="checkbox"/> A substitute specification. 15. <input type="checkbox"/> A change of power of attorney and/or address letter. 16. <input checked="" type="checkbox"/> Other items or information: 					
<div style="margin-left: 40px;"> Return Receipt Postcard Certificate of Express Mailing (Post Office to Addressee) A Copy of the PCT International Preliminary Examination Report A Copy of the PCT Publication WO 30/082500 </div>					

U.S. APPLICATION NO. (if known) 37 CFR 1.51				INTERNATIONAL APPLICATION NO.		ATTORNEY'S DOCKET NUMBER	
1075095101						1396 US/PCT	
17. <input checked="" type="checkbox"/> The following fees are submitted: BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)): Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO \$1070.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO \$930.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$790.00 International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$720.00 International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) \$98.00 ENTER APPROPRIATE BASIC FEE AMOUNT =						CALCULATIONS PTO USE ONLY	
						\$	950.00
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).						\$	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$			
Total claims	- 20 =		x \$22.00	\$			
Independent claims	- 3 =		x \$82.00	\$			
MULTIPLE DEPENDENT CLAIM(S) (if applicable)				\$			
TOTAL OF ABOVE CALCULATIONS =				\$			
Reduction of 1/2 for filing by small entity, if applicable. A Small Entity Statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28).				\$			
SUBTOTAL =				\$			
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$			
TOTAL NATIONAL FEE =				\$			
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +				\$			
TOTAL FEES ENCLOSED =				\$ 950.00			
						Amount to be refunded:	\$
						charged:	\$ 950.00
a. <input type="checkbox"/> A check in the amount of \$ _____ to cover the above fees is enclosed. b. <input checked="" type="checkbox"/> Please charge my Deposit Account No. <u>22-0281</u> in the amount of \$ <u>950.00</u> to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>22-0281</u> . A duplicate copy of this sheet is enclosed.							
NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the application to pending status. SEND ALL CORRESPONDENCE TO: VESUVIUS ATTN: ROBERT S. KLEMEZ, JR. -4604 CAMPBELLS RUN ROAD PITTSBURGH, PA 15205							
 SIGNATURE Robert S. Klemz, Jr. NAME 46,305 REGISTRATION NUMBER						①	

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)	HANSE et al.
)	
Title)	THERMAL SHOCK RESISTANT
)	CASTING ELEMENT AND
)	MANUFACTURING PROCESS THEREOF
)	
Attorney Docket No.)	1396 WO

To: Commissioner for Patents
Mail Stop PCT
P.O. Box 1450
Alexandria, VA 22313-1450

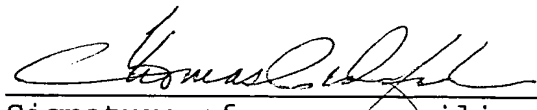
Express Mail Certificate

Date of Deposit: SEPTEMBER 28, 2004

To: Commissioner for Patents

I hereby certify that this correspondence is being deposited with the United States Postal Service as "Express Mail Post Office to Addressee" under 37 C.F.R. 1.10 on the date indicated above and was addressed to the Commissioner for Patents, Mail Stop PCT, P.O. Box 1450, Alexandria, VA 22313-1450.

Express Mail number ER 676106970US



Signature of person mailing correspondence

Thomas C. Dunford

Name of person mailing correspondence